Distr.
LIMITED

E/ECA/PSD.4/63
31 December 1985

ENGLISH

UNITED NATIONS

# ECONOMIC AND SOCIAL COUNCIL

ECONOMIC COMMISSION FOR AFRICA

Fourth session of the Joint Conference of African Planners, Statisticians and Demographers

Addis Ababa, 3-12 March 1986

## POSSIBLE APPROACHES TO THE INTEGRATION OF DEMOGRAPHIC, SOCIAL AND ECONOMIC STATISTICS INTO DEVELOPMENT PLANS

# I. INTRODUCTION

1. The African region's disappointing economic performance over the past 20 to 30 years and the gloomy prospects for the years to come if past policies and trends are maintained are evidence that the various development strategies adopted hitherto by African countries have not borne fruit. To correct this situation, the Heads of State and Government in 1980 adopted the Lagos Plan of Action which set forth new strategies and objectives.

2. The Plan, which was intended to serve as a guide to African countries in the drafting, evaluation and monitoring of their national development plans, emphasizes:

(i) economic growth created by mobilizing the peoples of African countries and using their latent potential (natural and human resources, capital, technology);

(ii) meeting basic needs;

(iii) improving living standards for the general public and sharing the fruits of development equitably,

(iv) economic independence and individual and collective self-sufficiency;

(v) cultural consolidation and the ending of cultural dependence through a cultural revolution and education for all,

(vi) popular participation in the development process; and

(vii) the protection and conservation of the environment.

3. The way in which the objectives and guidelines of the Lagos Plan of Action have been embodied in African countries' national development plans is clear evidence of the value attached to the well-being of the general public as a development objective. Stress is being put not only on the economic aspects of development but also on its demographic and social side. In other words, economic data on the one hand and demographic and social data on the other have key roles to play in the planning process - the analysis of current economic and social conditions and the formulation and evaluation of development policies and programmes.

4. In addition to traditional statistics, these new objectives and strategies require new data to be gathered on new areas of social concern such as living standards, basic needs, popular participation in development, and the environment, and new planning methods to be applied. It is within this broad framework that this paper

sets out to consider different possible approaches to the integration of demographic, social and economic statistics in African development plans. Thus, the first section of the paper is devoted to the chief demographic and socio-economic data which must underpin the planning exercise, and their various sources. The second section gives a number of examples of how these variables have been incorporated into overall and sectoral development policies and programmes. Finally, some conclusions are drawn as to the development and analysis of statistical information.

## II. PRINCIPAL STATISTICAL DATA NEEDED FOR DEVELOPMENT PLANNING

5. For user purposes, basic statistical data are not presented raw but in the form of "indicators" designed as a means of consolidating basic statistics into demographic, social or economic components. As a result there have evolved socio-economic indicators which can be used to measure the population and social or economic aspects of development. Socio-economic indicators cover output, resources (goods and services) and their use, financial operations, savings, the work force (jobs, unemployment, underemployment), population problems, household income, consumption, health, housing, education, and social services. Thus they form part of a multi-dimensional and interdependent system reflecting the concept of development.

6. The Lagos Plan of Action set forth Africa's objectives and aspirations as far as development is concerned. An integrated series of socio-economic indicators for planning and development will therefore be drawn up within the framework of this Plan. The structure of the various categories of economic indicators may be summarised as follows:

a. Population statistics:

- basic population state at the launching of the Plan (population strength, structural data, data on movement),
- population forecasts;

b. Economic statistics:

- macro-economic structure described in terms of the traditional systems of national accounts (SNA, MPS) or social accounting matrices,
- production methods;
- economic growth;
- investment;
- productivity;

b. Basic needs:
   - food,
   - health and nutrition,
   - education;
   - housing and environment,
   - social security and social services.

c. Employment, income, consumption and savings:
   - employment and jobless population,
   - household revenue, consumption and savings,

d. National self-sufficiency:
   - economic and financial independence,
   - technological indigenization,
   - cultural development;
   - public security;
   - improved information;

e. Collective self-sufficiency;

f. Popular participation in development,

g. Environment and land use;

h. Other specific areas of national concern

An expert Consultation on a System of Socio-economic Indicators for African Planners was held in Addis Ababa from 23 to 27 January 1984 to study this matter.

7. Basic statistics are indispensable to the production of socio-economic indicators. It is not yet possible in most African countries to provide all the indicators to satisfy the needs of planners, given the low level of statistical development in the region. National and international efforts are required to develop methods of collecting and analysing data.

8. It should be mentioned in this context that means of collecting various kinds of data are considered in a document entitled "Towards a System of Social and Demographic Statistics/Studies in Methods",1/ which provides a framework for the integration of population, social and economic statistics. Roughly speaking, such methods are of two types.

---

1/ Towards a System of Social and Demographic Statistics/Studies in Methods, Series F No. 18, New York, 1976.

a. Those applicable in the case of data in Government papers, and

b. General programmes of statistical data gathering, chief among them being population and housing censuses, and programmes for the establishment of national household survey capability. A simplified version of the system has been published for use in developing countries.

9. Government papers are in general an important source of information which can be used to provide data on health, education, the work force, population movements and household income; they can be combined without great difficulty with other data from other sources. Data from Government papers, however, are under-exploited in African countries.

10. Population and housing censuses are the **principal** means of obtaining integrated statistics at the local level, and are thus an important means of assembling an integrated data base.2/

11. Economic and Social Council resolutions 2055 (LXII) of 5 March 1977 and 1979 stress the importance of the National Household Survey Capability Programme, which was designed to help developing countries gather up-to-date, integrated socio-economic and demographic data for the preparation and updating of their development plans, policies and programmes. The programme, which began in Africa and was later extended to all developing regions throughout the world, calls for a continuous and co-ordinated series of household surveys on such various subjects as consumption, household expenditure and income, population characteristics, the labour force, health, nutrition, housing conditions, teaching, literacy, crop production and household businesses (farming, handicrafts, trade, transport, etc.).

12. The programme suggests a single basic set of questions for all survey cycles. A list of these basic questions appears in document E/CN.14/SM/22, "Household data requirements", published by ECA. These questions permit the establishment of analytical links between the variables gathered during different survey cycles and thus contribute to the integration of socio-economic and demographic data for development planning purposes.

---

2/ Handbook of Population and Housing Census Methods. Studies in Methods, Series F No. 16, New York, 1973.

13. Other methods of integrating survey data have also been used. There is for example the "Common Stem" survey system tested in Kenya for the continuous study of agriculture, other subjects are attached to the stem in the form of modules. Most African countries, however, seem to prefer the basic questions system during the present stage of development of their survey methods.

14. To permit the easy inter-relation of variables obtained during different surveys, it is essential to use the same concepts, definitions and classifications at the national level, in the light of international recommendations.

## III. THE INTEGRATION OF DEMOGRAPHIC, SOCIAL AND ECONOMIC VARIABLES IN DEVELOPMENT PLANS

15. The Lagos Plan of Action laid down the basic objectives of development in Africa; population in its various different aspects serves both as a point of departure and as a frame of reference for establishing both general and sectoral objectives at various levels.

16. Demographic variables have a direct or indirect influence on various aspects of a country's economy, including economic growth, income, employment, health and education. Likewise, social variables have an influence on development. For example, poor health among the work force has repercussions on production. Economic variables in their term have effects on population and social variables. Hence the need to integrate demographic, social and economic variables in development plans stems from the existence of two-way links between population and development.

17. From the point of view of development policies and planning techniques, the various possible approaches to the integration of population, social and economic variables in development plans are based on the interrelationships between them. Here demography offers what might be called a theoretical outline in the form of a set of variables plus a certain number of relationships which supposedly exist between them. Some empirical findings, for example, show that there is a high correlation between protein deficiency and infant mortality; a certain level of education among women corresponds to a certain level of infant mortality, a certain level of use of family planning services, and a certain category of employment. Statistical methods allow the correlations between these different variables to be determined.

18. The models describing correlations between population and development, social accounting matrices and satellite accounts are three examples of tools used by planners to integrate these variables into the planning exercise. They are briefly described below.

Models of the correlation between population and development

19. The purpose of these models is to allow account to be taken of the population factor in development planning, and to indicate its repercussions on other variables such as education, health, housing, labour, employment, unemployment, income distribution and poverty, migration, price and macro-economic variables. They give an idea of the cost and the effects of different population forecasts and trends in relation to the development objectives adopted.

20. Various different economic/demographic models have been developed, but they are not widely used in planning because of the small empirical base for the interrelationships between demographic, social and economic variables. Examples include the BACHUE model, which seeks to explain the reciprocal relationships between population, employment and income distribution, and the FAO model, which shows the correlations between economic and demographic variables, account being taken of the agricultural sector.3/

Social accounting matrices (SAMS)

21. The social accounting matrix is a system of national accounting which combines economic and social variables. Accordingly:

(i) The household sector is disaggregated into social groups defined according to their principal sources of revenue, their access to productive capital and other classification criteria;

(ii) The operational nomenclature takes account of such criteria as technology, employment structure and ownership or control;

(iii) The nomenclature for final consumption goods and services takes account of the "degree of essentiality" of requirements, distinguishing between "basic consumption items" and "luxury items". This distinction is vital for an analysis of the problems of poverty, inequality and the satisfaction of basic needs.

22. As with traditional national accounting systems, social accounting matrices are used in planning for forecasts and for building micro-economic and macro-economic (general balance) models which take account of the relationships between economic and social variables.

---

3/ Population and development modelling: Proceedings of the United Nations/UNFPA Expert Group Meeting, Geneva, 24-28 September 1979 (New York, 1981).

Satellite accounts

23. A satellite account provides a framework for assembling information on an area of social concern (health, education, housing, social welfare), with the two essential characteristics that it presents monetary and non-monetary data in a single structure and that it relates detailed analysis of the subject concerned to an overall economic analysis.

24. The advantages of satellite accounts lie in:

- The detailed analysis they afford of the subject under consideration, which one can summarise in a few characteristic social variables to define the information;
- The links between the social variables and the economic variables used in the central national accounting framework.

IV. CONCLUSIONS

25. The concept of development as envisaged in the Lagos Plan of Action requires social and demographic variables to be integrated into national development plans. This integration requires an effort to gather information and analyse it, and necessitates the introduction of new planning methods.

26. Surveys on population, agriculture and economic and commercial activities remain the priority areas, but they must be regarded as programmes for the establishment of national household survey capability - i.e., multi-purpose capability in order to embrace social features as well. This means that concepts, definitions and nomenclature must be standardized. It is also important to remember the existence of data deriving from government papers which can be obtained at little expense by providing the necessary technical support in the government bodies and offices where the information is available.

27. As far as planning methodology is concerned, it is important to stop confusing development with the growth of gross domestic product (GDP) and its principal sectoral components, and to regard it also as a process of reducing, and finally eliminating, poor and undesirable economic and social conditions. Planners must take demographic and social variables into account in the planning process. Specific research into the interrelationships between demographic variables on the one hand and economic variables on the other needs to be carried out in order to produce the necessary empirical base for the formulation of development policies and plans.